TEACHERS' RETIREMENT BOARD

INVESTMENT COMMITTEE

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SUBJECT: Real Estate – Discussion on Environmental Risk and Policy ITEM NUMBER: 5

ATTACHMENT(S): 4

ACTION: X DATE OF MEETING: May 7, 2003

INFORMATION: ___ PRESENTER(S): Mike DiRé and Mike Thompson

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Policy

The purpose of this item is to request a change to the real estate investment policies to include a section that addresses environmental risks.

Background

Like many pension funds, CalSTRS (the "System") does not have a formal written environmental policy. Staff has historically operated under a "zero tolerance" stance with respect to new acquisitions of assets. A primary concern was that a significant environmental loss could put the fnd at risk beyond the investment in the individual asset. In addition, historically, environmental conditions were difficult to evaluate and mitigate fully. Environmental Insurance was generally unavailable; therefore, the inherent risks were appropriately deemed not worth taking.

Hence, CalSTRS has built a portfolio of wholly owned assets that has reflected this "zero tolerance" stance. The result has been a portfolio that is relatively clean of any environmental issues but also relatively underweighted in asset types that are generally more apt to have environmental problems such as industrial, retail, or other urban assets.

The marketability of assets with environmental issues has expanded substantially over time with more institutions willing to take on manageable levels of environmental risk. This was due to the utilization of the structural, scientific, and insurance mitigation measures that have come into effect over the last 15 years. A continuation of the "zero tolerance" practice could put CalSTRS at a competitive disadvantage in the marketplace.

Staff and Pension Consulting Alliance, Inc. ("PCA") have considered the alternatives of either formalizing a "zero tolerance" position or undertaking a prudent degree of environmental risk. PCA and staff have surveyed a number of institutional real estate buyers to determine market norms and evaluated different types of environmental risks with associated mitigating factors and as a result, recommend; 1) adding a formal statement regarding environmental risk to the real estate policies; and 2) providing environmental guidelines for the System's investment managers. The policy statement will allow for the flexibility to invest in real estate with a manageable level of environmental risk that can be mitigated and to protect the System's assets from liability.

Underwriting Environmental Risk - The Past and the Present

Underwriting environmental risk has changed significantly over the past 10 – 20 years. Historically, environmentally contaminated real estate exposed the owner to a number of financial and political risks due to several joint and strict liability laws, enabling the government or future owners to sue for compensation to recover remediation costs and other damages. To a large extent, this same legal environment still exists. Regardless of fault, the Comprehensive Environmental Response Compensation and Liability Act of 1980, known as CERCLA, makes the current owner liable for property contamination. The Environmental Protection Agency ("EPA"), with significant enforcement power, has historically taken an adversarial stance toward owners of contaminated sites. Violators were slapped with first priority liens, fines, and penalties and had also been prosecuted criminally with violators imprisoned, in certain instances. This harsh regulatory framework has stunted the real estate market for contaminated sites (as well as sites perceived to be contaminated). This has had the unintended consequence of encouraging the development of undeveloped clean land "greenfields" and contributing greatly to sprawl.

To help stem this tide, initiatives and policies from states and the federal government have sought to provide more liability protection to nonpolluting prospective purchasers. Beginning in the 1990's, the EPA began to explore a more pragmatic approach to contamination, focusing on real environmental threats rather than artificial standards that might not be relevant. In pursuing a "market solution" for environmental problems, federal, state, and local governments have legislated programs through which purchasers of contaminated properties (in some cases) can be protected from responsibility for past environmental issues. Even more importantly, buyers can negotiate site-specific cleanup standards and get tentative signoff before buying.

Furthermore, technological advances in remediation techniques and insurance products helped enhance an owner's ability to take on a cleanup challenge. Whereas in the 1980's it was nearly impossible to purchase environmental insurance, today a number of viable choices exist within the environmental insurance market. As more and more entities engage in the exercise of remediation, track-records improve, more cost and other data becomes available, and mistakes are increasingly avoided. In addition to protection found in specific statutes and regulations, a buyer can negotiate "covenants not to sue" and "no further action letters" from governmental authorities in exchange for agreeing to purchase a site.

Investment and ownership of contaminated real estate still has elements of risk; however, real estate operators now have established track records of addressing those risks using legal structures, environmental insurance, and new scientific technologies. Therefore, it is now possible, as compared with 15-20 years ago to evaluate, price, and effectively mitigate many environmental risks.

Discussion

As stated earlier, CalSTRS does not have a formal written policy addressing environmental risk. While there is not a formal policy, there is an unwritten "zero tolerance" policy enforced by CalSTRS' legal department (consistent with previous board direction) in carrying out their portion of the due diligence process prior to the acquisition of an asset. This has caused some tension during acquisitions as assets that meet the policy quality and return criteria are potentially found to be unacceptable if environmental issues are present. The problem has been exasperated by the relatively high turnover of staff and real estate managers coupled with the quickly changing investment market that has grown to accept manageable levels of environmental risk.

The lack of a specific policy that is clearly and consistently communicated creates inefficiencies in the investment process for both staff and the System's investment managers. In addition, if CalSTRS formalizes the "zero tolerance" policy, we should acknowledge the limitation on the investment options available. For example, a "zero tolerance" policy would likely continue to slow the purchase of retail and industrial assets and hamper the implementation of the urban program, which by nature has some level of environmental issues.

While the real estate portfolio is generally clean of environmental issues, it should be noted there are two exceptions. One investment is a Fund that specializes in soil mediation with insurance coverage, and the other is a Joint Venture on an industrial portfolio that has a few sites with environmental conditions. The total equity commitment to both investments equals $89 million (1.8% of Real Estate) and potential liabilities are mitigated by the investment structure, expertise of the managers, and environmental insurance.

Missed Opportunity – Case Studies

The case studies below illustrate the limitation of investment alternatives due to the lack of a clear environmental policy. For context, by implementing our "zero tolerance" practice, if a potential acquisition asset or its adjacent site had an environmental condition, it would be have to be completely removed at the sellers expense or remediated prior to CalSTRS taking title to the asset.

**Environmental Case Study 1 (Soil remediation – gas stations):**

**Investment Name**: New England Retail Portfolio (twelve community centers in the New England region) – Spring of 2000

**Environmental Issues:**
On-site and off-site environmental issues existed at four of the sites. For example, at one site a gas station had several underground storage tanks ("USTs") that were removed in 1988. Upon removal, environmental consultants observed fuel oil in the water table within the excavation. The State Department of Environmental Protection ("DEP") was notified and the water/oil was extracted. Though residual contaminates were found to exist at the site, the consultant and DEP determined further remediation was not necessary and the excavation was backfilled.

At another site, a former gasoline station was located across the street. The former gas station site was not part of a proposed acquisition, but it had residual contamination and it was up gradient (up hill) from the proposed acquisition.

**Conclusion**: Due to the "zero tolerance" policy, one third of the portfolio was not purchased. The portion of the portfolio that was purchased has resulted in since inception net returns of 11.48%, well above the NCREIF retail index of 7.95%. The elimination of several sites may have reduced portfolio returns. In addition, the difficulty in closing this and other retail assets effectively discouraged our managers from pursing them.

**Environmental Case Study 2 (Asbestos clean-up):**

**Investment Name:** Office Building – Boston, MA – Spring 2000

**Environmental Issue:**
This 900,000 square foot office building was owned by an institutional investor. The seller had almost completed an asbestos abatement program that had been ongoing for several years. Floors that were periodically vacated were being abated and then refurbished for new tenants. At the time CalSTRS had this property under Letter of Intent ("LOI"), only 13% of the building remained to be abated and work was proceeding under a scheduled abatement plan and expected to be completed in 18 months.

> **Conclusion:** CalSTRS did not proceed with the investment. Shortly after CalSTRS declined the property it was purchased by a major institutional investor. The investor recently sold the asset for a significant amount over the price CalSTRS had targeted.

While both of these examples had a positive return, they are very real, practical examples of opportunities which were under LOI by CalSTRS. Staff feels our practice in this area has been cumbersome and has limited our ability as an effective buyer of assets. Although difficult to measure, the effect is that assets with any level of environmental risk are many times not shown to CalSTRS or not pursued by our managing partners.

How Institutional Investors View Environmental Risk

PCA and staff surveyed eleven large institutional investment managers to determine the environmental risk tolerance of their pension fund clientele. The survey group of institutional investment managers represents real estate pension fund capital in excess of $63 billion in aggregate net assets (excluding leverage). Respondents cover a variety of real estate investment strategies (core, value-added, and opportunistic) as well as both separate account and commingled fund investment structures. CalSTRS' real estate investment advisors are well-represented within the survey group. PCA and staff believe that the surveyed investors represent market norms for environmental risk tolerance.

As part of the survey, PCA developed an environmental risk scale with input from an advisory firm acknowledged as an expert in the acquisition of environmentally impaired properties. The risk scale is shown below. Respondent investors were asked to rate their pension fund clientele's risk tolerance on a scale from zero to ten, with zero representing no tolerance and ten representing the highest tolerance.

The results are as follows:

## Environmental Risk Scale

| **Risk Level** | **0** | **1-2** | **3-4** | **5-6** | **7-8** | **9-10** |
|---|---|---|---|---|---|---|
| **Phase I/Phase II Site Assessments** | No recognizable environmental condition | Suspect condition/Issue of probable concern | Possible/Probable environmental condition | Probable/Known environmental condition | Known environmental condition | Major environmental condition |
| **Example** | New project built on farmland | Retail site with gas station, drycleaner, and pool supply company with some chlorine on the floor; no contamination | Office building with an asbestos abatement program in process as leases expire | Industrial property with known contamination in soil and no impact on adjacent sites | Older industrial property with known contamination in soil and ground water that has impacted adjacent sites | Superfund site |
| **Extent/Type of Environmental Concern** | n/a | Location/Level of environmental concern easily determinable<br><br>Environmental concern onsite | Location/Level of environmental concern easily determinable<br><br>Environmental concern primarily onsite | Location/Level of environmental concern determinable<br><br>In some cases, environmental concern may have impacted adjacent properties | Location/Level of environmental concern less determinable<br><br>Environmental concern may have impacted adjacent properties | Major Release Site<br><br>Superfund Sites<br><br>Environmental concern has had substantial impact on adjacent properties and may lead to potential mass tort/destruction of natural resource claims |
| **Timing and Cost of Remediation** | n/a | If necessary, must be performed by seller prior to acquisition | Timing and cost easily quantifiable<br><br>Remediation may be performed after acquisition with a fixed price remediation contract in hand | Timing and cost mostly quantifiable<br><br>Remediation may be performed after acquisition | Cost less predictable<br><br>Remediation process may extend beyond 36 months and/or may approach investment-holding period | Range of potential outcomes relating to both timing and cost of remediation vary widely |
| **State/Federal Agency Sign-Off** | n/a | Non-conditional NFA/NFR required prior to acquisition | Non-conditional NFA/NFR preferred but not required prior to acquisition | NFA/NFR preferred but not required prior to acquisition and may contain future conditions for monitoring or otherwise | NFA/NFR not required prior to acquisition and may contain future conditions for monitoring or otherwise | NFA/NFR not required prior to acquisition |
| **Environmental Insurance** | n/a | Required | Required | Required | May or may not be available | Likely not available or if available, cost prohibitive |
| **Indemnification** | n/a | Required | Required | Preferred but not required | Preferred but not required | Preferred but not required |

Definitions
NFA – No Futher Actions letter issued by State or Federal Agency
NFR – No Futher Remediation

**Environmental Survey Results**

| **Risk Level** | **0** | **1-2** | **3-4** | **5-6** | **7-8** | **9-10** |
|---|---|---|---|---|---|---|
| **% of Respondents** | 4.8% | 27.8% | 29.2% | 33.2% | 5.0% | 0.0% |

As shown in the Environmental Survey Results table above, survey respondents stated that most of their pension fund clients are accepting some level of environmental risk in their real estate portfolios. Respondents rated their pension fund clients risk tolerance within a range of 0 to 8 on the risk scale. More than 90% of the respondents indicated that their pension fund clientele would accept environmental risk in the 1-6 risk levels with the median risk level occurring in the 3-4 level. No survey participant indicated that its pension fund clientele was willing to accept environmental risk in the 9-10 level.

Recommendation

Staff has reviewed the alternatives related to the current informal "zero tolerance" environmental policy. The pros, cons, and mitigating factors of each alternative are as follows:

| Alternative | Pro | Con | Mitigating Factors |
|---|---|---|---|
| Do not change policy | • None | • Unclear direction<br>• Competitive disadvantage | • NA |
| Revise to a formal "zero tolerance" policy | • No environmental liability<br>• When asset is sold there is a large universe of buyers<br>• Clear direction to investment managers | • Limits investment options<br>• Competitive disadvantage on buy side<br>• Not consistent with institutional market | • N/A |
| Revise to allow limited environmental tolerance if appropriately mitigated | • Competitive in all product types<br>• Clear direction to investment managers<br>• More flexibility on the buy side | • Environmental liability<br>• Higher cost of due diligence and management<br>• Indemnification issues on sell side | • Liability will be mitigated with various structural techniques<br>• Higher costs can be included in return projections to determine if project meets hurdles<br>• Limit indemnities on sell side |

After reviewing the alternatives and analyzing market practices, we found that it is not consistent with the present institutional real estate market to practice a "zero tolerance" environmental policy. It is common for large institutions to buy and sell real estate with some form of environmental risk, as long as there are appropriate mitigators.

Staff and PCA recommend the Investment Committee approve a revision to the real estate policy to allow more flexibility regarding environmental risk. The new policy statement developed by PCA and Staff is Attachment 1 and the resolution is included as Attachment 4. The new policy will allow investments with low levels of environmental risk, as long as there are appropriate mitigating factors and the potential liability does not extend beyond the value of the asset.

If the Investment Committee approves, we will recommend the CIO approve a new real estate guideline outlining appropriate procedures for mitigating environmental risks. This new guideline is included as Attachment 2.

PCA's review and approval letter for the new policy statement is Attachment 3.

Date prepared: April 14, 2003

By:

Michael J Thompson

Michael Thompson
Investment Officer III

Approved by:

Mike DiRé

Mike DiRé
Director - Real Estate

Review & Concur:

Christopher J. Ailman
Chief Investment Officer

Attachment 1
Investment Committee – Item 5
May 7, 2003

# CalSTRS

## CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM

## REAL ESTATE
*Policies*

## INVESTMENT BRANCH
## MAY 2003

**California State Teachers' Retirement System**
**Real Estate**
**Policies**

# EXECUTIVE SUMMARY

In accordance with the Investment Management Plan, the California State Teachers' Retirement System (CalSTRS) has established an allocation for investment real estate, an illiquid equity related asset, using internal staff and external specialized professionals. The primary objective for investment real estate is to improve diversification of the overall investment portfolio. The investment real estate portfolio will also have secondary objectives to achieve a rate of return which corresponds to the amount of risk outlined in the real estate portfolio risk/return composite approved by the Investment Committee and to provide a stable cash flow to the investment portfolio.

Investment real estate can be divided into three broad categories of risk: (1) low risk, (2) moderate risk, and (3) high risk. Each risk category contains certain characteristics which have been included as Exhibit 1. CalSTRS investment real estate portfolio will have a strategic target risk/return allocation of 50% low risk, 25% moderate risk and 25% high risk.

CalSTRS investment real estate portfolio may consist of real estate assets purchased and owned in the following investment ownership structures: direct investments, commingled funds, securitized investments, joint venture investments, and debt with equity features.

The CalSTRS Board has established the asset allocation and strategic objectives for the real estate portfolio. The policies are designed to set boundaries for expected performance, diversification, and investment structure. The purchase, management and sale of all types of real estate investments is performed by external professionals who are monitored and evaluated by internal investment officers, an external real estate consultant, and/or independent fiduciaries. The internal investment officers and independent fiduciaries operate under the direction of the Chief Investment Officer. The external real estate consultant reports directly to the CalSTRS Board.

**California State Teachers' Retirement System**
**Real Estate**
**Policies**

The following represent approved policies to be utilized in the management of the California State Teachers Retirement Systems (CalSTRS) investment real estate portfolio. The policies are designed to set boundaries for the expected performance, diversification and investment structure. Policies approved by the CalSTRS Board cannot be altered without explicit direction from the CalSTRS Board.

1. **Laws and Statutes** - The investment real estate portfolio of the California State Teachers' Retirement System is to be invested, managed and sold in a prudent manner for the sole benefit of CalSTRS participants and beneficiaries in accordance with the Teachers' Retirement law and other applicable statutes. No investment vehicle or activity prohibited by the Investment Resolution adopted by the Board in 1984, as amended from time to time will be authorized for the investment real estate portfolio.

2. **Role of Investment Real Estate** - The primary role of the investment real estate portfolio is to provide improved diversification to the overall investment portfolio. Secondary objectives are to generate an enhanced yield to the actuarial rate assumption and to provide stable cash flows.

3. **Portfolio Risk Composite** - CalSTRS has established a composite risk range for the investment real estate portfolio. A strategic allocation target of 50% in low risk with a range of 40% to 75%, a 25% target for moderate risk with a range of 15% to 35% and a target of 25% for high risk with a range of 15% to 35% will be used. The definition of the different risk levels has been included as Exhibit 1.

4. **Environmental Liability –** CalSTRS will prudently accept environmental liability in a manner consistent with overall industry standards applicable to institutional investors acting in a like manner under similar circumstances. CalSTRS will not invest in real estate with environmental conditions if potential liability exceeds the amount of investment and creates a risk to CalSTRS. All environmental risk will be appropriately mitigated by factors including but not limited to environmental insurance, indemnifications by credit worthy sellers, agreements with regulatory authorities, and legal structure of ownership.

5. **Portfolio Leverage –** CalSTRS may utilize leverage to enhance investment returns. Consideration will be given to the risk associated with such leverage on the overall real estate portfolio with specific limitations identified in Exhibit 1. Leverage will not exceed 50% of the total portfolio.

6. **Portfolio Cash Flow** - The projected unleveraged cash flow for new acquisitions in the low risk portion of the investment real estate portfolio is expected to approximate the actuarial rate assumption over a four-year horizon. Exceptions to this policy will be approved, in writing, by the Chief Investment Officer. Moderate risk and high-risk investments will not be constrained by cash flow targets and will emphasize yield enhancement over a shorter time frame than low risk investments.

7. **Property Type** - The property types used for investments in the real estate portfolio are traditional (industrial, multi-family residential, office, and retail) and non-traditional as defined in Exhibit 3.

8. **Geographic Location** - Geographic regions for investing are defined as the location of the individual property. The geographic breakdown is expressed as Mid-West, East, South, West, and International. Properties located outside the United States may be held only in the moderate and high-risk categories.

9. **Investment Ownership Structure** - CalSTRS may invest through the following investment ownership structures: direct investments, commingled funds, securitized investments, joint ventures, and debt with equity features.

9. **Diversification Guidelines** - Low risk investments shall have strategic targets and ranges established by property type and geographic location as shown in Exhibit 2. Purchases or sales shall not be completed for the sole purpose of aligning one specific criterion. Projected rate of return, composite risk profile, and other policies should receive consideration in all transactions. Moderate and high-risk investments will not have diversification targets by property type or geographic location.

10. **Investment Limitations** - Graduated limitations of daily buying and selling cash, securities, and properties for aggregate real estate equity investment portfolio transactions are as follows (including lock box transactions):

| | |
|---|---|
| Associate Investment Officer | $ 5 million |
| Investment Officer I | $ 10 million |
| Investment Officer II | $ 25 million |
| Investment Officer III | $ 50 million |
| Principle Investment Officer | $ 100 million |
| Director of Real Estate | $ 250 million |
| Chief Investment Officer | $ 1 billion |

11. **Discretionary Authority** - The rejection and approval decision for low, moderate and high risk direct ownership properties, co-investments, commingled funds and secondary interests is delegated to Staff with the stipulation that all investments are subject to the appropriate due diligence as defined in the real estate procedures.

    The approval of major capital decisions including the decision to acquire, finance, refinance, renovate, expand, or sell is delegated to Staff considering the following stipulations:

    A. Due diligence process shall be consistent and appropriate as defined in the investment real estate procedures.
    B. Maximum amount of the commitment should not exceed $100 million.
    C. A final recommendation report will be presented to the Investment Committee as soon as practical after the transaction is completed.
    D. Direct real estate assets and commingled fund strategies located in the United States.

Staff can delegate the above authority to CalSTRS' real estate managers for the implementation of the low risk investment strategies.

12. **Authorized Signers** - Authorization letters which indicate who may sign on behalf of CalSTRS shall be delivered to the appropriate parties. Whenever a change in authorized signer(s) occurs, the affected parties shall be notified within 24 hours in the event of termination and as soon as possible in the event of a newly authorized signer. If the CIO is indicated as an authorized signer, the CIO may delegate signing authority to other investment office personnel.

13. **Policy Reporting** - CalSTRS' real estate consultant shall monitor the investment process for compliance with policies and report to the CalSTRS Board as requested.

14. **Performance Benchmark** - CalSTRS shall use the NCREIF Property Index or other indices, as appropriate, to benchmark real estate investments in the portfolio.

15. **Annual Business Plan** - The real estate portfolio will be managed according to an annual business plan whose main business components will encompass an analysis of the investment environment, a review of the investment strategy, a review of the diversification targets, and a resource allocation budget.

16. **Portfolio Reporting** - The real estate consultant will prepare and present a portfolio performance report on a semi-annual basis. The performance report will evaluate CalSTRS' portfolio diversification and investment performance.

Adopted on September 1, 1999
Revised: May 2003

**Exhibit 1**

**California State Teachers' Retirement System**
**Real Estate**
**Policies**

## Definition of Risk Characteristics

Investment real estate can be categorized into a risk and return spectrum comprised of low risk, moderate risk, and high risk. The following table reflects the characteristics of the three categories of risk:

### Low Risk

- Minimum real rate of return of 6% (net of inflation and fees)
- Traditional property types (industrial, office, retail and apartments)
- Substantially leased at acquisition (higher than 80% leased)
- Leverage is limited to 30% (loan to value) on a portfolio basis and 50% on individual assets
- Cash flow from property is the largest component of return
- Properties located in large and diverse geographic areas in the U.S.

### Moderate Risk

- Minimum real rate of return of 9% (net of inflation and fees)
- Traditional and non-traditional property types
- Partially leased at acquisition (higher than 50%)
- Leverage is limited to 60% (loan to value) on a portfolio basis and 70% on individual assets
- May be vacant or construction related (i.e. new development and redevelopment) if the leasing requirement stated above is in place at funding.
- Cash flow and appreciation are both large components of future value
- Geographically concentrated; potentially international locations

### High Risk

- Minimum real rate of return of 12% (net of inflation and fees)
- Traditional and non-traditional property types.
- May be vacant or construction related (includes new development and redevelopment)
- Leverage is limited to 75% (loan to value) on a portfolio basis and 90% on individual assets
- Appreciation is the largest component of future value
- Geographically concentrated; potentially international locations

**Exhibit 2**

**California State Teachers' Retirement System**
**Real Estate**
**Policies**

## Diversification Criteria for the Low Risk Portfolio

| Geographical Location | Range | Target |
|---|---|---|
| West | 30% - 50% | 40% |
| South | 15% - 35% | 25% |
| East | 10% - 30% | 20% |
| Mid-West | 5% - 25% | 15% |

| Property Type | Range | Target |
|---|---|---|
| Industrial | 15% - 35% | 25% |
| Apartments | 10% - 30% | 20% |
| Office | 30% - 50% | 35% |
| Retail | 15% - 35% | 20% |

**Exhibit 3**

**California State Teachers' Retirement System**
**Real Estate Investments**
**GLOSSARY**

**APPRAISAL –** An estimate or opinion of market value.

**APPRECIATION –** The percentage change in the market value of a property or portfolio over the period of analysis.

**ASSET MANAGEMENT –** The various disciplines involved with managing real property assets from the time of investment through the time of disposition. Proper asset management plans and policies include requirements for operating and capital budgets; property management; leasing; physical property analysis; operational and financial reporting; appraisal; audits; accounting policies; and asset disposition plans (hold/sell analyses).

**BENCHMARK –** An index derived from database information which allows for comparative performance evaluation within an asset class.

**CAPITAL IMPROVEMENTS –** Expenditures that cure or arrest deterioration of property or add new improvements to prolong its life.

**CO-INVESTMENT –** Investments where the management organization has a capital investment and ownership share.

**COMMINGLED FUND –** A term applied to all open-end and closed-end pooled investment vehicles designed for institutional tax-exempt investors. A commingled fund may be organized as a group trust, partnership, corporation, insurance company separate account, private real estate investment trust or other multiple ownership entity.

- **Open-end Fund –** A commingled fund with no finite life, that allows continuous entry and exit of investors, and typically engages in ongoing investment purchases and sale activities.
- **Closed-end Fund –** A commingled fund with a stated termination date, with few or no additional investors after the initial formation of the fund. Closed-end funds typically purchase a portfolio of properties to hold for the duration of the fund and, as sales occur, typically do not reinvest the sales proceeds.

**DISCRETION –** The level of authority given to an investment manager over the investment and management of a client's capital once that capital is allocated to the investment manager.

**DIRECT INVESTMENT –** An investment in which CalSTRS has a direct ownership interest in a property or group of properties.

**FAIR MARKET VALUE –** The highest price a property would bring if exposed for sale in the open market by a willing seller to a willing buyer with both parties being fully informed of all the uses and purposes to which the property is reasonably adaptable and available.

**Exhibit 3**

**California State Teachers' Retirement System**
**Real Estate Investments**
**GLOSSARY**

**FIDUCIARY –** A person in whom CalSTRS reposes, and the person accepts, a special trust and confidence involving the exercise of professional expertise and discretion.

**GROUND LEASE –** A lease of land only, not including any improvements on the property.

**INCOME –** The component of return derived from property or portfolio operations during the period of analysis.

**INTERNAL RATE OF RETURN (IRR)** – The actual (or projected) dollar-weighted holding period return produced by an asset, calculated with consideration for all items of cash in and cash out.

**INVESTMENT MANAGER -** A company that, by contractual agreement, provides property investment opportunities and/or property asset management services.

**JOINT VENTURE** – A structure wherein two or more partners agree to purchase and/or operate an investment.

**LEVERAGE –** The use of borrowed funds to increase purchasing power and, ideally, to increase the profitability of an investment.

**LIMITED PARTNERSHIP** – A partnership with both general and limited partners in which the general partner manages the business and assumes full liability for the partnership obligations with the liability of the limited partners generally restricted to their capital contributions.

**NCREIF INDEX** – National Council of Real Estate Investment Fiduciaries Index; a property-level performance benchmark for institutionally owned real estate, calculated on a quarterly basis.

**NET OPERATING INCOME –** Rental and other income of a property, less operating expenses but before the deduction of capital expenditures and debt service.

**NON-TRADITIONAL PROPERTY TYPE –** Non-conventional property types such as timber, hotels, senior housing, single family housing, natural resources, land, mini-storage, etc.

**OPPORTUNISTIC** – A phrase characterizing investment in underperforming and/or undermanaged assets typically purchased from distressed sellers; utilizing high levels of leverage with the expectation of near-term increases in cash flow and value.

**PROPERTY MANAGEMENT –** The various functions that are performed at the property level in order to assure timely collection of rents, payment of expenses and supervision of on-site activities.

**Exhibit 3**

**California State Teachers' Retirement System**
**Real Estate Investments**
**GLOSSARY**

**REAL RATE OF RETURN –** Yield to the investor after adjusting for inflation (typically determined by the Consumer Price Index).

**TOTAL RETURN –** The sum of the income and appreciation returns.

**TRADITIONAL PROPERTY TYPE –** Conventional property types such as office, multi-family residential, industrial and retail real estate.

**VALUE-ADDED –** A phrase commonly used by investment managers to describe a management approach to a property with the connotation that their skills will add value which otherwise would not be realized.

CalSTRS will undertake a prudent level of environmental risk. Real estate investments will only be considered if there are appropriate mitigating factors that protect the system from potential liability and other risks. For commingled funds, securitized, and debt investments, staff will strive to select managers and structures that will mitigate environmental risks. Joint venture operating partners will be required to comply with CalSTRS' "Approved Environmental Parameters" within their joint venture agreements.

**<u>Acquisitions:</u>**

1. To minimize risk of loss and the potential liability associated with hazardous material or other material of concern, CalSTRS shall not entertain or make acquisitions of property known or suspected to be contaminated, except under conditions as specifically set forth below.

2. Investment managers shall coordinate the retention of qualified environmental consultants with CalSTRS' outside environmental legal counsel, in order to preserve attorney-client and attorney work product privileges. The contracts between the investment manager and environmental consultant shall be reviewed by CalSTRS' outside environmental legal counsel for adequacy.

3. All initial recommendations to acquire property should incorporate the results of a phase I environmental report. The report scope should minimally meet the ASTM standard E-1527 and be approved by CalSTRS' environmental counsel prior to an experienced expert environmental consultant beginning the assignment. If potential environmental liabilities are identified, the investment manager may recommend a phase II subsurface investigation or other follow-up investigation.

4. Any proposed acquisition involving property that is known or reasonably suspected to have been impacted by hazardous materials (including mold), or to contain asbestos, shall have an Investment Summary providing full disclosure of (a) all known facts or beliefs forming the basis for the knowledge or reasonable suspicion of such contaminations; and (b) the known or suspected nature and extent of such contamination. The recommendation to acquire such property shall take these disclosures into account and shall include, at a minimum, the following information:

   a. Results of an inquiry into the identity of all previous owners and tenants, as well as prior and existing uses of the property consistent with customary practice in an effort to minimize liability;

   b. Commonly known reasonable and ascertainable information about the obvious or likely presence of hazardous materials on or about the real property;

c. A written report with respect to the result of a hazardous material inspection and survey, conducted by a qualified consultant that specializes in such inspections and surveys. The report shall include an assessment for environmental concerns not included in the ASTM standard scope, such as radon, asbestos, and mold, unless the consultant recommends otherwise, together with any other tests recommended or advised by such consultant. In addition, for multi-family acquisitions or acquisitions with other sensitive uses (such as child care, senior care or assisted-living facilities), the scope of work shall also include lead-based paint and lead-in-water sampling; and

d. If the report discloses a suspicion or existence of hazardous materials with the potential to negatively affect the property, the Investment Summary shall contain a detailed mitigation proposal identifying the scope, method, and costs of measures designed to remove the hazardous materials or mitigate the effect of the hazardous materials.

5. If the property is found or suspected to be affected by hazardous materials, the investment manager shall identify on the Environmental Risk matrix the specific concerns, risk exposure, mitigation measures, and factors reducing risk. [Note: the Environmental Risk matrix is intended solely as a guideline and is not all-inclusive, as it will not address many environmental risk circumstances]. No acquisition of the property shall be consummated, unless the investment manager recommends, with the full concurrence of staff and outside environmental legal counsel, one of the following approaches:

   a. The mitigation measures recommended by the investment manager can be carried out by the seller prior to the close of escrow and will effectively mitigate the risks to CalSTRS, and the purchase contract provides full indemnity with respect to any liability associated with such hazardous materials; or

   b. The investment manager, on behalf of CalSTRS, can carry out the recommended mitigation measures after close of escrow and that such measures will effectively mitigate the risks without creating any significant exposure to CalSTRS arising out of the performance of such mitigation measures. In such an event, the cost of such measures shall be budgeted for and have been included in the projected risk-adjusted rate of return. The high end of cost estimates should be used in the projections and the quality, experience and financial strength of the contactor must be at a very high level. In addition, fixed price contacts and cleanup cost cap insurance will be used to limit cost overrun exposure. Where appropriate, risk management tools such as environmental insurance, environmental indemnities, or prospective purchase agreements or other regulatory agency approvals shall be obtained in consultation with CalSTRS' outside environmental legal counsel.

## Asset Management

1. Investment managers are required to have an Environmental Management plan for each asset.

2. Any recommendation to undertake the collection of samples from any medium (air, surface water, groundwater or soil) as a component of a management plan must be approved by CalSTRS staff.

3. The primary objectives of the Environmental Management plans are to manage risk by:

   - Outlining the implementation strategy for the mitigation measures as identified in the acquisition due diligence process and final closing letter to CalSTRS, including any measures as may be required by environmental or other insurance for the property.

   - Managing risk by providing awareness of any potential hazard to any person in occupancy at any property, such as by way of operation and maintenance plans for asbestos, lead paint and mold, and facilitate appropriate emergency responses in the event of an environmental accident.

   - Monitor the past and present environmental issues and their effect on the asset and its tenants, and develop a proactive plan to reduce future environmental risk associated with new tenants and proposed surrounding land uses.

   - Negotiate and periodically update lease provisions to provide allocation of risk, where allowable by law, to the tenant for identification, notice, and responsibility for addressing hazardous materials, including mold.

## Dispositions

1. Any recommendation to undertake the collection of samples from any medium (air, surface water, groundwater or soil) as a component of a disposition strategy must be approved by CalSTRS staff.

   *Note: Environmental Matrix section titled "Possible Mitigation Measures/Factors" uses terms defined as follows:

   **Mitigation Measures:** Actions to be taken to reduce risk in the future and protect against past activities.

   **Factors Reducing Risk:** A past event or circumstance associated with the property.

| Problems | Risk Exposure | Possible Mitigation Measures/Factors Reducing Risk |
|---|---|---|
| 1. Historic use of Underground Storage Tanks ("USTs") | -Residual contamination from removed tanks and/or piping<br>-Tanks and/or piping improperly abandoned or not removed | **Mitigation Measures**<br>-Geophysical survey to locate potential tanks<br>-Soil/groundwater sampling<br>-Environmental insurance<br>-If a minor problem remains, reserve sufficient funding from sale to correct the problem<br>-If soil removal is necessary, alternatives to land disposal may be available (i.e. incineration, bioremediation facilities)<br><br>**Factors Reducing Risk**<br>-Use was limited in scope, recent (or long in the past), and/or of short duration<br>-USTs removed under agency oversight with documentation of sampling conducted<br>-"No Further Action" letter issued by the regulatory agency with UST oversight responsibility<br>-Availability of UST Fund or similar reimbursement program |
| 2. Historic use/storage of hazardous materials/waste | -Agricultural activities using pesticides<br>-Former gasoline stations (see above)<br>-Historic industrial use | **Mitigation Measures**<br>-Soil/groundwater sampling in areas believed to use/store hazardous materials<br>-Environmental insurance<br><br>**Factors Reducing Risk**<br>-Current development onsite (e.g. paving and structures) limiting exposure to soil (agriculture)<br>-Type of previous activity (i.e. use of oils vs. solvents)<br>-Use was limited in scope, recent (or long in the past), and/or of short duration<br>-Good record of compliance with hazardous materials handling requirements |

| Problems | Risk Exposure | Possible Mitigation Measures/Factors Reducing Risk |
|---|---|---|
| 3. Current USTs | -Leaking or spillage from tanks and/or piping<br>-Tanks do not comply with 1998 EPA upgrade requirements<br>-Residual contamination from recent upgrades. | **Mitigation Measures**<br>-Soil/groundwater sampling<br>-Environmental insurance<br>-Agency documentation that USTs comply with 1998 requirements<br><br>**Factors Reducing Risk**<br>-Tank construction (double-walled, monitoring, etc.)<br>-Recent installation<br>-Previous USTs removed and/or upgraded under agency oversight with a No Further Action letter issued<br>-Materials stored are less mobile if released (i.e. waste oil) |
| 4. Current use/storage of hazardous materials/waste | -Leaks or accidental spills | **Mitigation Measures**<br>-Soil/groundwater sampling<br>-Environmental insurance<br>-If minor problem is present, use alternatives to land disposal where available (i.e. incineration, bioremediation facilities)<br><br>**Factors Reducing Risk**<br>-Use of secondary containment<br>-Written procedures for handling materials/waste<br>-Small vs. large quantity generator<br>-Relatively new operation<br>-Good record of compliance with hazardous materials handling requirements |

| Problems | Risk Exposure | Possible Mitigation Measures/Factors Reducing Risk |
|---|---|---|
| 5. Drycleaners | -Solvent contamination | **Mitigation Measures**<br>-Soil/soil vapor/groundwater sampling<br>-Environmental insurance to be carried by tenant<br>-Move drycleaner operation offsite<br>**Factors Reducing Risk**<br>-Use of state-of-the-art equipment<br>-Relatively new facility<br>-Good record of compliance with hazardous materials handling requirements |
| 6. Potential impacts from adjacent/ up gradient properties | -Migration of contaminants on to site<br>-Limitations on development<br>-Potentially difficult resale | **Mitigation Measures**<br>-Soil/groundwater sampling to determine whether contaminants have migrated onto or beneath site<br>-Environmental insurance<br>**Factors Reducing Risk**<br>-Soil vs. groundwater contamination<br>-Distance of problem source from property<br>-Responsible party identified and financially viable<br>-Agency oversight<br>-Cleanup underway<br>-Little potential for onsite activities to be a contributor |
| 7. Mold | -Potential for exposure to tenants or other occupants<br>-Potential for property damage | **Mitigation Measures**<br>-Visual assessment and/or sampling (surface and potentially air)<br>-Environmental insurance<br>**Factors Reducing Risk**<br>-Recency and extent of proliferation<br>-type of mold |

| Problems | Risk Exposure | Possible Mitigation Measures/Factors Reducing Risk |
|---|---|---|
| 8. Asbestos | -Potential for exposure to tenants or other occupants<br>-Potential for property damage | **Mitigation Measures**<br>-Visual assessment of suspect materials and sampling program<br>-Environmental insurance (generally available for bodily injury claims only)<br>-Operations and maintenance program<br>-Abatement<br>**Factors Reducing Risk**<br>-effective encapsulation<br>-operations and maintenance program |
| 9. Lead paint | -Potential for exposure to tenants or other occupants | **Mitigation Measures**<br>-Visual assessment of suspect materials and sampling program<br>-Environmental insurance (generally available for bodily injury claims only)<br>-Operations and maintenance program<br>-Abatement<br>**Factors Reducing Risk**<br>-Effective encapsulation<br>-Operations and maintenance program |
| 10. Lead in water | -Potential for exposure to tenants or other occupants<br>- Potential for significant costs to remove and replace fixtures or other plumbing | **Mitigation Measures**<br>-Sampling program<br>-Environmental insurance<br>-Notices<br>**Factors Reducing Risk**<br>-Newer plumbing materials<br>-Clean municipal water supply |

| Problems | Risk Exposure | Possible Mitigation Measures/Factors Reducing Risk |
|---|---|---|
| 11. Radon | -Potential for exposure to tenants or other occupants | **Mitigation Measures**<br>-Sampling program in higher risk regions<br>-Environmental insurance (may contain exclusions for radon)<br>-Remediation Program<br><br>**Factors Reducing Risk**<br>-Lower risk region identification<br>-Lack of subsurface features at property |

PENSION CONSULTING ALLIANCE, INC.

***VIA FACSIMILE***

April 25, 2003

Investment Committee
California State Teachers' Retirement System
7667 Folsom Boulevard
Sacramento, CA 95826

**RE: Environmental Liability Policy**

Dear Members of the Investment Committee:

Pension Consulting Alliance, Inc. ("PCA") has reviewed the revision to the Real Estate Investment Policies prepared by Staff regarding environmental liability. It is our understanding that the stated objectives of the new policy on environmental liability will be to accomplish the following:

1. Discontinue the current "zero tolerance" informal policy.
2. Create a formal policy which allows limited environmental risk that can be appropriately mitigated.
3. Provide environmental guidelines for CalSTRS' real estate investment managers.
4. Enhance Staff's real estate acquisition activities by increasing competitiveness in all product types, providing clear direction to investment managers and increasing flexibility on the "buy."

The new policy will state as follows:

CalSTRS will prudently accept environmental liability in a manner consistent with overall industry standards applicable to institutional investors acting in a like manner under similar circumstances. CalSTRS will not invest in real estate with environmental conditions if potential liability exceeds the amount of investment and creates a risk to the fund. All environmental risk will be appropriately mitigated by factors including but not limited to; environmental insurance, indemnifications by credit worthy sellers, agreements with regulatory authorities, and legal structure of ownership.

We reviewed the new policy for compliance with respect to the CalSTRS' Real Estate Investment Plan and Policy guidelines. Based upon our review, PCA concludes the following:

1. The new policy appears consistent with the primary real estate investment objective of improving diversification of the overall investment portfolio.
2. The new policy is a prudent effort to enhance Staff's efforts to react to market opportunities.

3. Any new environmental risks will be appropriately mitigated and any such potential liability associated with an investment will be limited to that investment.

Sincerely,

Nori Gerardo Lietz

Nori Gerardo Lietz
Managing Director

cc: Mike DiRe
Doug Wills, Esq.
Marcus A. Steele

Attachment 4
Investment Committee – Item 5
May 7, 2003

PROPOSED
RESOLUTION OF THE
TEACHERS' RETIREMENT BOARD
INVESTMENT COMMITTEE

SUBJECT: Revised Real Estate Investment Policy

Resolution No. ____________

WHEREAS, the Investment Committee of the California State Teachers' Retirement Board is responsible for recommendations to the Board, investment policy and overall investment strategies for the management of the Teachers' Retirement Fund, a multi-billion dollar public pension plan; and

WHEREAS, the Investment Committee is charged with developing the Fund's Investment Policies and Management Plan including the policies for individual asset classes such as real estate; and

WHEREAS, it is the Committee's desire to revise the existing policy for real estate. Therefore, be it

RESOLVED, that the Investment Committee approve the revised Real Estate – Investment Policy.

Adopted by:
Investment Committee
on May 7, 2003

______________________________
Jack Ehnes
Chief Executive Officer